



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/593,721

04/13/2007

Hirotoishi Iwasaki

0121/0060

2814

21395

7590

09/02/2009

LOUIS WOO

LAW OFFICE OF LOUIS WOO

717 NORTH FAYETTE STREET

ALEXANDRIA, VA 22314

EXAMINER

LEWIS, ALICIA M

ART UNIT

PAPER NUMBER

2164

MAIL DATE

DELIVERY MODE

09/02/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,721	Applicant(s) IWASAKI ET AL.	
	Examiner Alicia M. Lewis	Art Unit 2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/13/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on April 13, 2007 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

3. The abstract of the disclosure is objected to because it exceeds 150 words. Correction is required. See MPEP § 608.01(b).

Claim Objections

4. Claim 3 is objected to because of the following informalities: It is unclear as to how a system can judge what a user watches or hears. The Examiner suggests using claim language such as "a user who selects" or a "user who plays" etc. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 4, 5, 12, 15, 16 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 4 recites the limitation "said user's" in lines 3-4 of the claim. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 5 recites "state information indicative of a state related to playing of said contents." However, the term "state information" is unclear. The specification does not provide a clear description or explanation of the term state information. Paragraph 80 of the PG-Pub only recites that state information may be "information on various states such as present position acquired by the GPS (Global Positioning System)". However, this recitation does not clearly define the term state information. For the purposes of examination, the term "state information" will be interpreted to be any type of information about content.

9. Claim 12 recites rearranging a portion of said program table on the basis on said tree structure. However, claim 10 recites that the program table is expressed by a tree structure. Therefore, it is unclear as to how the program table is rearranged based in the tree structure when the tree structure is an expression of the program table. For the purposes of examination, claim 12 will be limited to rearranging a portion of said program table.

10. Claim 15 recites the limitation "the next position" in lines 2-3 of the claim and "the last position" in line 4 of the claim. There is insufficient antecedent basis for this limitation in the claim. Furthermore, it is unclear as to what position the term "next position" refers, and to what position the term "last position" refers (i.e. does the last position mean the absolute last position or the previous/prior position).

11. Claim 16 recites the limitation "the last position" and "the next position". It is unclear as to what position the term "next position" refers, and to what position the term "last position" refers (i.e. does the last position mean the absolute last position or the previous/prior position). Furthermore, it is unclear as to how there can be a next position after a last position.

12. Claim 22 recites the limitation "said predetermined network" in lines 4-5 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

13. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-18 are directed to a method of creating a program table defining a temporal arrangement of a plurality of contents. However, there is no explicit recitation of a particular machine or apparatus, nor is there a recitation of a step that inherently involves the use of a particular machine or

Art Unit: 2164

apparatus. Furthermore, the claim does not require the method to particularly transform a particular article. As such, claims 1-18 are rejected as being non-statutory.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

15. Claims 1-3, 5-9, 14-17 and 19-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Sato et al. (US 2003/0114968 A1) ('Sato').

With respect to claims 1 and 19, Sato teaches a program table creation method of creating a program table defining a temporal arrangement of a plurality of contents, characterized in that said program table is created through the use of a constraint solution technique on the basis of a constraint condition related to a selection of said plurality of contents and/or a constraint condition related to a temporal arrangement of said plurality of contents (paragraphs 35-40 and 44).

With respect to claim 2, Sato teaches the program table creation method according to claim 1, characterized in that a description of said constraint condition is

Art Unit: 2164

made through the use of a constraint condition description function defined in advance (paragraphs 40 and 45).

With respect to claim 3, Sato teaches the program table creation method according to claim 1, characterized in that user's liking information indicative of a liking of a user who watches or hears said contents is acquired as said constraint condition (paragraph 40).

With respect to claim 5, Sato teaches the program table creation method according to claim 1, characterized in that state information indicative of a state related to playing of said contents is acquired as said constraint condition (paragraphs 40 and 64).

With respect to claim 6, Sato teaches the program table creation method according to claim 1, characterized in that said program table is created by making reference to content attribute information indicative of an attribute of each of the plurality of contents (paragraphs 23, 40 and 44).

With respect to claim 7, Sato teaches the program table creation method according to claim 1, characterized in that, when constraint falls into an excess state in constraint solution processing at the creation of said program table, priorities are set with respect to said contents and/or said constraint condition so that said constraint

Art Unit: 2164

solution processing is conducted while preferentially employing said constraint condition higher in priority (paragraphs 54-55, 82, and 111) (*Sato teaches when there is excess time (i.e. an excess state) the system modifies the program list to extend the time length. He further teaches that extended priorities are used to determine the order/priority in which programs should be extended*).

Claim 7 recites optional claim language (i.e. "when"). The functional limitation of claim 7, i.e. "priorities are set...", only occurs if/when the constraint falls into an excess state. If the constraint does not fall into an excess state, the priorities are not set and the claim doesn't perform any steps. Thus, claim 7 is optionally patentable because there are no limitations that are required to happen.

With respect to claim 8, Sato teaches the program table creation method according to claim 1, characterized in that, when constraint falls into a shortage state in constraint solution processing at the creation of said program table, scores are set with respect to said contents and/or said constraint condition so that said constraint solution processing is conducted by making a comparison between a plurality of operation results of operations using a function in which said score is set as a parameter (paragraphs 54, 56-57, 80, and 110) (*Sato teaches when there is not enough time (i.e. a shortage state) the system modifies the program list to reduce the time length. He further teaches that shorten priorities (scores) are used to determine the order/priority in which programs should be shortened and that program numbers (scores) are used to determine which programs should be deleted*).

Claim 8 recites optional claim language (i.e. "when"). The functional limitation of claim 8, i.e. "scores are set...", only occurs if/when the constraint falls into a shortage state. If the constraint does not fall into a shortage state, the scores are not set and the claim doesn't perform any steps. Thus, claim 8 is optionally patentable because there are no limitations that are required to happen.

With respect to claims 9, 21 and 24 Sato teaches the program table creation method according to claim 1, characterized in that a constraint logical programming technique is used as said constraint solution technique (paragraph 44).

With respect to claim 14, Sato teaches the program table creation method according to claim 1, characterized in that an arrangement of said contents is optimized on the basis of one of a score set with respect to said contents, a correlation of attributes of said contents and a correlation of said contents or a combination thereof at the creation of said program table or after the creation thereof (paragraphs 33, 40 and 44).

With respect to claim 15, Sato teaches the program table creation method according to claim 1, characterized in that said content to be disposed at the next position is determined on the basis of said content disposed at the last position with respect to a time axis (paragraphs 45-47, 54-55 and 69).

The claim language “to be disposed” represents an intended use of said content because the claim does not actually require the content to be disposed at the next position. Therefore, if the prior art structure is capable of performing the intended use, then it meets the claim.

With respect to claim 16, Sato teaches the program table creation method according to claim 1 or 15, characterized in that said content to be disposed at the last position is determined on the basis of said content disposed at the next position with respect to a time axis (paragraphs 45-47, 54-56 and 69).

The claim language “to be disposed” represents an intended use of said content because the claim does not actually require the content to be disposed at the next position. Therefore, if the prior art structure is capable of performing the intended use, then it meets the claim.

With respect to claim 17, Sato teaches the program table creation method according to claim 1, characterized in that an arrangement of said contents is determined on the basis of a pattern of said plurality of contents with respect to a time axis (Figures 3 and 5, paragraphs 44-45, 47 and 77).

With respect to claims 20 and 23, Sato teaches the program table creation device/system according to claims 19 and 22, characterized in that said program table creation device is mounted in a vehicle and made to create said program table of

Art Unit: 2164

programs to be watched and heard in the interior of said vehicle (paragraphs 22 and 25).

With respect to claim 22, Sato teaches a program table creation system for creating a program table defining a temporal arrangement of a plurality of contents, characterized by comprising:

a program table creation server existing in said predetermined network and so arranged that said program table is created through the use of a constraint solution technique on the basis of a constraint condition related to a selection of said plurality of contents and/or a constraint condition related to a temporal arrangement of said plurality of contents (paragraphs 24, 35-40 and 44);

a communication unit connectable with said predetermined network and capable of transmitting said constraint condition through said predetermined network to said program table creation server and receiving said program table created by said program table creation server (paragraphs 24 and 31).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2164

17. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US 2003/0114968 A1) ('Sato') in view of Thielen (US 2004/0117442 A1).

With respect to claim 4, Sato teaches acquiring a constrain condition (paragraphs 35-40 and 44).

Sato does not teach the program table creation method according to claim 1, characterized in that said constraint condition is automatically acquired by automatically generating said user's liking information through learning of said user's liking.

Thielen teaches a handheld portable wireless digital content player (see abstract), in which he teaches that said constraint condition is automatically acquired by automatically generating said user's liking information through learning of said user's liking (paragraph 183, 156 and 163).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Sato by the teaching of Thielen because automatically acquiring by automatically generating said user's liking information through learning of said user's liking would enable a more efficient audio apparatus by eliminating the need of a user to have to input preferences manually (Thielen, paragraph 183), and would also enable a multi-purpose player that functions as a portable, vehicle and at home digital content player (Thielen, paragraph 46-47).

Art Unit: 2164

18. Claim 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US 2003/0114968 A1) ('Sato') in view of Chasen et al. (US 6,760,721 B1) ('Chasen').

With respect to claim 10, Sato teaches the program table creation method according to claim 1.

Although Sato teaches said program table data, Sato does not teach that said table is expressed by a tree structure having one or a plurality of hierarchies in which elements indicative of said contents constituting said program table are disposed in a lowest-rank layer and elements summarizing features of lower-rank elements are disposed in a rank higher with respect to the elements indicative of said contents.

Chasen teaches a system and method of managing metadata data (see abstract), in which he teaches table is expressed by a tree structure having one or a plurality of hierarchies in which elements indicative of said contents constituting said table are disposed in a lowest-rank layer (*i.e. track names*) and elements summarizing features of lower-rank elements (*i.e. albums, artist, genre*) are disposed in a rank higher with respect to the elements indicative of said contents (col. 3 line 59 – col. 4 line 8, Table 1 in column 11, and “Groupings Tree” in columns 13-14).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Sato by the teaching of Chasen because a table is expressed by a tree structure having one or a plurality of hierarchies in which elements indicative of said contents constituting said program table are disposed in a

Art Unit: 2164

lowest-rank layer and elements summarizing features of lower-rank elements are disposed in a rank higher with respect to the elements indicative of said contents would enable a user to easily access and view data by arranging data in a hierarchical arrangement. For example, groupings tree provide ways to group and categorize audio data and playlist trees provide ways to create and provide ordered lists of audio tracks (Chasen, col. 3 lines 66-67, col. 4 lines 7-8).

The Examiner would like to note that claim 10 recites nonfunctional descriptive material that has no patentable weight. The limitations of claim 10 represent an arrangement of data (i.e. in a tree structure) that do no impart any functionality to the claimed method. The way in which the data is arranged does not affect the way a system/computer operates, nor does it cause anything to happen in a computer. As such, claim 10 holds no patentable weight. However, for the purposes of compact prosecution, the Examiner has applied art.

With respect to claim 11, Sato in view of Chasen teaches the program table creation method according to claim 10, characterized in that said elements associated with each other in higher-rank and lower-rank layers have attribute information or time width information consistent with each other (Chasen, col. 3 line 59 – col. 4 line 8, Table 1 in column 11, and “Groupings Tree” in columns 13-14) *(In the Genre/Artist/Album groupings sub tree in col. 13-14, elements in lower and higher ranks each have consistent genre attribute information. For example, in the funk sub-tree, all elements below the funk node have a funk genre).*

The Examiner would like to note that claim 11 recites nonfunctional descriptive material that has no patentable weight. The limitations of claim 11 represent an arrangement of data (i.e. in a tree structure) that do no impart any functionality to the claimed method. The way in which the data is arranged does not affect the way a system/computer operates, nor does it cause anything to happen in a computer. As such, claim 11 holds no patentable weight. However, for the purposes of compact prosecution, the Examiner has applied art.

With respect to claim 12, Sato in view of Chasen teaches the program table creation method according to claim 10, characterized in that a portion of said program table is rearranged on the basis of said tree structure (Sato, paragraphs 88, 110 and 111).

With respect to claim 13, Sato in view of Chasen teaches the program table creation method according to claim 12, characterized in that the rearrangement of the portion of said program table is made by employing one of a method of deriving a new solution through the use of a previous solution or a method of deriving a new solution through the use of a history related to a previous solution derivation, or by employing a combination of these methods (Sato, paragraphs 88, 110 and 111).

Art Unit: 2164

19. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US 2003/0114968 A1) ('Sato') in view of Foote et al. (US 2003/0205124 A1) ('Foote').

With respect to claim 18, Sato teaches the program table creation method according to claim 1.

Sato does not teach an arrangement of said contents is changed by making reference to content attribute information indicative of attributes of said contents so that a correlation between said contents adjacent to each other reaches a maximum as a whole.

Foote teaches a method and system for retrieving and sequencing music by rhythmic similarity (see abstract), in which he teaches an arrangement of said contents is changed by making reference to content attribute information indicative of attributes of said contents so that a correlation between said contents adjacent to each other reaches a maximum as a whole (paragraphs 97-98, 109 and 111).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Sato by the teaching of Foote because an arrangement of said contents is changed by making reference to content attribute information indicative of attributes of said contents so that a correlation between said contents adjacent to each other reaches a maximum as a whole would enable a smooth transition between content, such as music files (Foote, paragraphs 97-98).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Lewis whose telephone number is 571-272-5599. The examiner can normally be reached on Monday - Friday, 9 - 6:30, alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on 571-272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. M. L./
Examiner, Art Unit 2164
August 31, 2009

/Charles Rones/
Supervisory Patent Examiner, Art Unit 2164